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Apr 10, 1986

DERWENT-ACC-NO: 1986-133954

DERWENT-WEEK: 198621

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TITLE: Surface hardening of titanium - comprises heating titanium in nitrogen and hydrogen gases, used for watch cases and glass frames

PATENT-ASSIGNEE:

ASSIGNEE

CODE

CITIZEN WATCH CO LTD

CITL

PRIORITY-DATA: 1984JP-0193480 (September 14, 1984)

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JP 61069956 A

April 10, 1986

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APPLICATION-DATA:

PUB-NO

APPL-DATE

APPL-NO

DESCRIPTOR

JP 61069956A

September 14, 1984

1984JP-0193480

INT-CL (IPC): C23C 8/24

ABSTRACTED-PUB-NO: JP 61069956A

BASIC-ABSTRACT:

The method involves heating Ti to 800-880 deg.C in approx. 1 atm. N2 gas atmos. contg. 5-500 ppm O2, and 10-5000 ppm H2 gas. The treatment is done by heating Ti to 800-880 deg.C in approx. 1 atm. N2 gas atmos. contg. 50-5000 ppm steam.

USE/ADVANTAGE - The hardening treatment is used for watch cases, glass frames, and other armouring parts. More deeper hardened layer, e.g. 100-150 microns in thickness compared to approx. 50 microns as in conventional method are obtd. so it is effective to apply Ti armouring parts that are used after mirror-polishing.

CHOSEN-DRAWING: Dwg.0/2

TITLE-TERMS: SURFACE HARDEN TITANIUM COMPRISE HEAT TITANIUM NITROGEN HYDROGEN GAS  
WATCH CASE GLASS FRAME

DERWENT-CLASS: M14

CPI-CODES: M13-D03A;